



Natural Heritage & Endangered Species
Program
Division of Fisheries & Wildlife
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MASSACHUSETTS RARE AND ENDANGERED PLANTS

NEW ENGLAND BONESET

(*Eupatorium leucolepis* T. & G. var. *novae-angliae* Fern.)

DESCRIPTION

New England Boneset is a robust plant up to 3.5 feet (0.4 - 1 m) tall with short-hairy stems and foliage. It has conspicuous flat-topped clusters of white flowers that bloom in August and September. The leaves are opposite, sharply toothed, and narrowly (1/3 to 4/5 in, 0.8 - 2 cm) lance-shaped. This plant is a perennial that can spread by means of underground rhizomes.

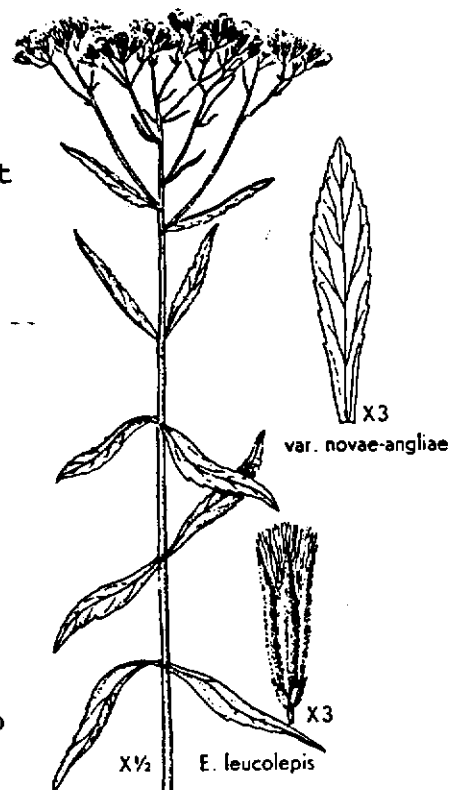
SIMILAR SPECIES IN MASSACHUSETTS

Boneset (*Eupatorium perfoliatum*), is similar to New England Boneset; however, the former has leaves which are distinctly perfoliate (leaves grown together at the base). Rough Thoroughwort (*Eupatorium pilosum*), also resembles New England Boneset and may also be found on pond shores. However, Rough Thoroughwort has ovate, shorter and more serrated leaves.

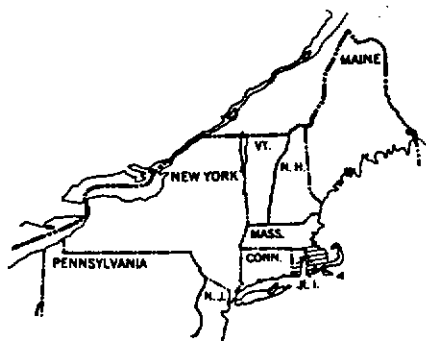
HABITAT IN MASSACHUSETTS

New England Boneset inhabits the upper margin of sandy to peaty shores of coastal plain ponds. The survival of coastal plain pondshore species is dependent on the pronounced seasonal fluctuation of the water levels of these kettle hole ponds which have no inlet or outlet. Water levels are determined by the amount of rainfall and movement of groundwater, generally rising in the winter and spring and lowering in the summer and fall.

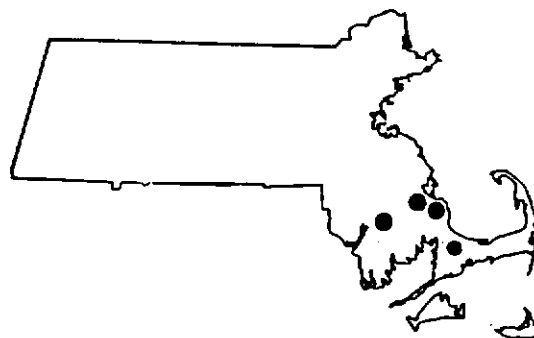
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Gleason, H.A. The New Britton and Brown Illustrated Flora of the Northeastern U.S. and Adjacent Canada. New York Botanical Garden, 1932.



Distribution of *Eupatorium leucolepis*
var. *novae-angliae*



● Verified since 1978

○ Reported prior to 1978

Distribution in Massachusetts by Town

Other species occurring in this habitat with New England Boneset include: Solidago tenuifolia, Sabatia kennedyana, Fuirena pumila, Scleria reticularis, Rhexia virginica, Viola lanceolata, Drosea filiformis, and Drosera intermedia.

RANGE

This variety of Eupatorium leucolepis occurs only in a three county area of southeastern Massachusetts and southern Rhode Island where it is known from less than 20 freshwater ponds. Its closest relative, White-bracted Boneset (E. leucolepis var. leucolepis) inhabits roadside ditches, moist sandy fields, and pine barren ponds from Long Island, New York, south to Florida and Louisiana.

POPULATION STATUS IN MASSACHUSETTS

New England Boneset is classified as "Endangered" in Massachusetts. It is rare throughout its entire range. There are 7 current locations (since 1978) and 5 historical locations (prior to 1978).

Within its very limited range this variety has lost habitat through development of pondshores for housing and recreational use. Lowering of water quality in the ponds by run-off and leaking septic systems and alteration of the water table have also reduced available habitat. Like other pond species, New England Boneset varies in abundance from year to year depending on water level. It may survive in a dormant state for one or more years when conditions are unfavorable.